CLAIMS

1. A system comprising:

a low-processor-load aggregation device interposed between a network and at least one network station, said low-processor-load aggregation device having:

at least one multi-channel device, said multi-channel device having at least one internal network tag associated with the at least one network station, and

a host-processor-controlled routing device operably coupled with the network, said host-processor-controlled routing device configured to coordinate at least one network address with the at least one internal network tag associated with the at least one network station.

2. The system of Claim 1 wherein the at least one internal network tag associated with the at least one network station comprises:

at least one VLAN tag associated with a channel unit of the at least one multi-channel device.

3. The system of Claim 1 wherein the at least one internal network tag associated with the at least one network station comprises:

a channel unit of the at least one multi-channel device maintaining at least one end of a logical channel, a second end of the logical channel maintained by the at least one network station.

4. The system of Claim 1 wherein said at least one multi-channel device comprises:

said at least one multi-channel device uniquely coupled with a private-network device having a unique private-network address, said private network internal to the low-processor-load aggregation-unit.

5. The system of Claim 4 wherein the private network internal to the low-processor-load aggregation-unit comprises:

an Ethernet-protocol network.

6. The system of Claim 4 wherein the private-network device having a unique private-network address comprises:

an Ethernet-protocol device having a unique Ethernet protocol MAC address.

7. The system of Claim 4 wherein the internal to the low-processor-load aggregation-unit comprises:

the private network operating over a shared medium, a non-shared medium, or a combination of a shared medium and a non-shared medium.

8. The system of Claim 1 wherein the least one multi-channel device comprises:

a channel unit which provides voice processing.

9. The system of Claim 1 wherein the low-processor-load aggregation device comprises:

a host processor.

10. The system of Claim 1 wherein the low-processor-load aggregation device comprises:

a switch.

11. The system of Claim 1 wherein the switch comprises an Ethernet protocol switch.

12. The system of Claim 1 wherein the system comprises a minicomputer.

13. The system of Claim 1 wherein the network station comprises a network station selected from the network-station group including but not limited to a PC device, a voice device, and a fax device.

14. A method comprising:

coordinating an external network packet with an internal private-network address of a low-processor-load aggregation device.

15. The method of Claim 14 wherein said coordinating an external network packet with an internal private-network address of the low-processor-load aggregation device comprises:

coordinating the external network packet with at least one internal private-network address of at least one multi-channel device.

16. The method of Claim 15 wherein said coordinating the external network packet with at least one internal private-network address of at least one multi-channel device comprises:

coordinating the external network packet with the at least one internal private-network address on the basis of a content of the external network packet.

17. The method of Claim 16 wherein said coordinating the external network packet with the at least one internal private-network address on the basis of a content of the external network packet comprises:

coordinating the external network address with an internal private-network address on the basis of a Voice-Over-IP, Modem-Over-IP, or Fax-Over-IP content of the external network packet.

18. The method of Claim 15 wherein said coordinating the external network packet with at least one internal private-network address of at least one multi-channel device comprises:

coordinating the external network packet with the at least one internal private-network address on the basis of a header of the external network packet.

19. The method of Claim 15 wherein said coordinating an external network address of the packet with at least one internal private-network address of at least one multi-channel device comprises:

coordinating the external network address with at least one internal private-network device uniquely associated with the at least one multi-channel device.

20. The method of Claim 15 wherein said coordinating an external network address of the packet with at least one internal private-network address of at least one multi-channel device comprises:

coordinating the external network address with at least one VLAN tag internal to the at least one multi-channel device.

21. The method of Claim 20 wherein said coordinating the external network address with at least one VLAN tag internal to the at least one multi-channel device comprises:

coordinating the external network address with at least one VLAN tag internal to the at least one multi-channel device, where the at least one VLAN tag is associated with a channel unit maintaining a logical channel with at least one network station.

22. The method of Claim 21 wherein the network station comprises a network station selected from the network-station group including but not limited to a PC device, a voice device, and a fax device.

23. The method of Claim 14 wherein said coordinating an external network packet with an internal private-network address of a low-processor-load aggregation device comprises:

coordinating the external network address with an internal private-network address of a host processor.

24. The system of Claim 23 wherein said coordinating the external network address with an internal private-network address of a host processor comprises:

directing at least a part of a packet having the external network address to the internal private-network address of the host processor.

25. The system of Claim 23 wherein said coordinating the external network address with an internal private-network address of a host processor comprises:

directing at least a part of a packet having the external network address to a channel unit internal to the internal private-network address of the host processor.

26. The method of Claim 14 wherein the internal private-network address comprises:

an Ethernet-protocol address.

27. A system comprising:

means for coordinating an external network packet with an internal private-network address of a low-processor-load aggregation device.

28. The system of Claim 27 wherein said means for coordinating an external network packet with an internal private-network address of the low-processor-load aggregation device comprises:

means for coordinating the external network packet with at least one internal private-network address of at least one multi-channel device.

29. The system of Claim 28 wherein said means for coordinating the external network packet with at least one internal private-network address of at least one multi-channel device comprises:

means for coordinating the external network packet with the at least one internal private-network address on the basis of a content of the external network packet.

30. The system of Claim 29 wherein said means for coordinating the external network packet with the at least one internal private-network address on the basis of a content of the external network packet comprises:

means for coordinating the external network address with an internal private-network address on the basis of a Voice-Over-IP, Modem-Over-IP, or Fax-Over-IP content of the external network packet.

31. The system of Claim 28 wherein said means for coordinating the external network packet with at least one internal private-network address of at least one multi-channel device comprises:

means for coordinating the external network packet with the at least one internal private-network address on the basis of a header of the external network packet.

32. The system of Claim 28 wherein said means for coordinating an external network address of the packet with at least one internal private-network address of at least one multi-channel device comprises:

means for coordinating the external network address with at least one internal private-network device uniquely associated with the at least one multi-channel device.

33. The system of Claim 28 wherein said means for coordinating an external network address of the packet with at least one internal private-network address of at least one multi-channel device comprises:

means for coordinating the external network address with at least one VLAN tag internal to the at least one multi-channel device.

34. The system of Claim 33 wherein said means for coordinating the external network address with at least one VLAN tag internal to the at least one multi-channel device comprises:

means for coordinating the external network address with at least one VLAN tag internal to the at least one multi-channel device, where the at least one VLAN tag is associated with a channel unit maintaining a logical channel with at least one network station.

35. The system of Claim 34 wherein the network station comprises a network station selected from the network-station group including but not limited to a PC device, a voice device, and a fax device.

36. The system of Claim 27 wherein said means for coordinating an external network packet with an internal private-network address of a low-processor-load aggregation device comprises:

means for coordinating the external network address with an internal private-network address of a host processor.

37. The system of Claim 36 wherein said means for coordinating the external network address with an internal private-network address of a host processor comprises:

means for directing at least a part of a packet having the external network address to the internal private-network address of the host processor.

38. The system of Claim 36 wherein said means for coordinating the external network address with an internal private-network address of a host processor comprises:

means for directing at least a part of a packet having the external network address to a channel unit internal to the internal private-network address of the host processor.

39. The system of Claim 27 wherein the internal private-network address comprises:

an Ethernet-protocol address.

40. A method comprising:

coordinating an external network-station packet with an internal private-network address of a low-processor-load aggregation device.

41. The method of Claim 40 wherein said coordinating an external network-station packet with at least one internal private-network address of at least one multi-channel device comprises:

coordinating the external network-station packet with the at least one internal private-network address on the basis of a content of the external network-station packet.

42. The method of Claim 41 wherein said coordinating the external network-station packet with the at least one internal private-network address on the basis of a content of the external network-station packet comprises:

coordinating the external network-station address with an internal private-network address of a host processor on the basis of a content of the external network-station packet.

43. The method of Claim 42 wherein said coordinating the external network-station address with an internal private-network address of a host processor on the basis of a content of the external network-station packet comprises:

coordinating the external network-station address with an internal private-network address of a host processor on the basis of a PPP control command content of the external network-station packet.

44. The method of Claim 41 wherein said coordinating the external network-station packet with the at least one internal private-network address on the basis of a content of the external network-station packet comprises:

coordinating the external network-station address with an internal private-network address of a routing device on the basis of a header of the external network-station packet.

45. The method of Claim 40 wherein the internal private-network address comprises:

an Ethernet-protocol address.

46. A system comprising:

means for coordinating an external network-station packet with an internal private-network address of a low-processor-load aggregation device.

47. The system of Claim 46 wherein said means for coordinating an external network-station packet with at least one internal private-network address of at least one multi-channel device comprises:

means for coordinating the external network-station packet with the at least one internal private-network address on the basis of a content of the external network-station packet.

48. The system of Claim 47 wherein said means for coordinating the external network-station packet with the at least one internal private-network address on the basis of a content of the external network-station packet comprises:

means for coordinating the external network-station address with an internal private-network address of a host processor on the basis of a content of the external network-station packet.

49. The system of Claim 48 wherein said means for coordinating the external network-station address with an internal private-network address of a host processor on the basis of a content of the external network-station packet comprises:

means for coordinating the external network-station address with an internal private-network address of a host processor on the basis of a PPP control command content of the external network-station packet.

50. The system of Claim 47 wherein said means for coordinating the external network-station packet with the at least one internal private-network address on the basis of a content of the external network-station packet comprises:

means for coordinating the external network-station address with an internal private-network address of a routing device on the basis of a header of the external network-station packet.

51. The system of Claim 46 wherein the internal private-network address comprises:

an Ethernet-protocol address.

52. A method comprising:

coordinating an external network-station control message with an internal private-network address of a low-processor-load aggregation device.

53. The method of Claim 52 wherein said coordinating an external network-station control message with an internal private-network address of a low-processor-load aggregation device comprises:

coordinating the external network-station control message with the at least one internal private-network address.

54. The method of Claim 53 wherein the control message comprises a PPP control message.

55. The method of Claim 52 wherein the internal private-network address comprises:

an Ethernet-protocol address.

56. A system comprising:

coordinating an external network-station control message with an internal private-network address of a low-processor-load aggregation device.

57. The system of Claim 52 wherein said means for coordinating an external network-station control message with an internal private-network address of a low-processor-load aggregation device comprises:

means for coordinating the external network-station control message with the at least one internal private-network address.

58. The system of Claim 53 wherein the control message comprises a PPP control message.

59. The system of Claim 52 wherein the internal private-network address comprises:

an Ethernet-protocol address.